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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,361	01/05/2004	Axel Bumann	4965-000172	2201
27572 7590 05/07/2007 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303				
			EXAMINER BUMGARNER, MELBA N	
			ART UNIT 3732	PAPER NUMBER
			MAIL DATE 05/07/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/751,361

Applicant(s)

BUMANN ET AL.

Examiner

Melba Bumgarner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 20 is/are allowed.
- 6) ☒ Claim(s) 1, 3-19 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 3-14, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether the at least one tensioning/retaining element is intended to be positively claimed as it is limited in combination with adhesive composition.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 5-7, 11-13, 15, 18, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melsen (Other document 1) in view of Piekarsky (4,533,320). Melsen discloses an orthodontic implant system comprising an implant having a shaft which can be implanted in a jawbone, a thread and a head adjoining the shaft at one end of the shaft, fastening means on the head having two recesses in an outer surface of the head, at least one recess formed as a slit recessed at a free end of the head and having a depth, the two recesses crossing one another at right angles, the recess extending substantially transversely to a longitudinal axis of the shaft and being open on at least one side of the head, and the shaft and head formed in one

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piece; however, they do not show a curable adhesive composition. Piekarsky teaches an orthodontic system comprising a curable adhesive composition 40 to bond the tensioning element 32 (column 2 line 50) . It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Melsen to include an adhesive composition as in Piekarsky et al. in order to stabilize the tensioning element to the implant in view of Piekarsky et al.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melsen in view of Piekarsky and further in view of Huskens et al. The implant of Melsen and Piekarsky shows the limitations as described above; however, they do not show the recess formed as a slit recess formed as a borehole. Huskens et al. teach an implant comprising the recess formed as a borehole. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the recess to be in the form as in Huskens et al. in order to have an anchoring base for fastening of components such as wires or springs in view of Huskens et al.

6. Claims 8-10, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melsen in view of Piekarsky and further in view of Kanomi et al. The implant of Melsen and Piekarsky shows the limitations as described above; however, they do not show a free end of the head having a coning. It would have been an obvious matter of choice to one of ordinary skill in the art as to the shape of the head having the recess; however, Kanomi et al. teach an implant comprising a free end of the head having a coning which tapered toward the free end with a recess being formed in the coning (figure 7C). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the implant of Melsen and Piekarsky to have the head as shown in Kanomi et al. Kanomi et al further show a radially

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inwardly directed undercut of the coning and a polygon formed around the head, and Melsen and Kanomi et al. show the shaft having a thread.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Melsen in view of Piekarsky and further in view of Bennett (4,936,775). The implant of Melsen and Piekarsky shows the limitations as described above; however, they do not state the adhesive composition curable by means of light. Bennett teaches a dental adhesive composition curable by means of light (column 2 line 66). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the adhesive composition to be curable by means of light in order to quickly cure the adhesive in a controllable activation step in view of Bennett.

*Allowable Subject Matter*

8. Claim 20 is allowed.

*Response to Arguments*

9. Applicant's arguments with respect to the rejected claims have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melba Bumgarner whose telephone number is 571-272-4709. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriquez can be reached at 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melba Bumgarner  
Primary Examiner